

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004632**Date Inspected:** 16-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower & OBG**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

**OBG Sub-Assembly Bay 1:**

The QA Inspector randomly observed 4 ZPMC welders ID Numbers 054761/062265 and 059443/059468, utilizing the Gas Metal Arc Welding (GMAW) Process in 2G/2F Positions on Gantry 2 with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2342-U1(U-Rib)-4, to weld the U-Ribs to Deck Plate DP125-001, at Weld Joint (WJ) Numbers 003/004 and 007/008. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 363/366 amps, 30.1/30.7 volts (003/004) and 359/362 amps, 30.7/30.6 volts with a travel speed of 525 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 2 magnetic drill operators drilling bolt holes in U-Ribs U-43, U-44, U-45 and U-46 prior to forming.

**OBG Bay 4:**

The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of the fillet welds on Side Plate Sub-Assembly SP725A Yellow Tag 001648/Green Tag 001662 (SP725-001 WJ's 013 through 024).

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## WELDING INSPECTION REPORT

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There appeared to be no indications the QA Inspector accepted all welds on SP725A. The QA Inspector also verified that QA Final VT and MT had been completed on Side Plates SP435A/Yellow Tag 001652 (SP435-001 WJ's 001 through 010) and SP467A/Yellow Tag 001651 (SP467-001 WJ's 001 through 010), and signed the Green Tag Documentation along with ZPMC and ABF Representatives. Green Tags 001661 (SP435A) and 001660 (SP467A) were attached to the respective Side Plates. The attached photographs provide additional detail.

Heavy Equipment Shop Bay 3:

The QA Inspector performed a 10% final MT verification on the cover pass of the welds on Deck Plates DP171-001 (9DW) WJ's 001 through 010 Yellow Tag 000534, DP198-001 Yellow Tag 00536 (9DW) WJ's 001 through 010 and DP333-001 (9DE) WJ's 001 through 008 Yellow Tag 000535. There appeared to be no indications the QA Inspector accepted all welds on the above listed Deck Plates.



### Summary of Conversations:

As noted in the above body of this report.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, 13764710411, who represents the Office of Structural Materials for your project.

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| <b>Inspected By:</b> | Franco,Charlie | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Wright,Mark    | QA Reviewer                 |

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